



iowa department of environmental quality

reply to: Allan Goldberg, Regional Office #4  
phone: 712-243-1934

10-2-14  
82 ①  
161153  
Name: Atlantic Water  
ID #: 19D039954300  
Biom: 1.3  
Other: IDEQ  
10-5-82

October 5, 1982

Board of Trustees  
Atlantic Municipal Utilities  
15 West Third Street  
Atlantic, Iowa 50022

A722 1.0  
DU-60 161153  
SUPERFUND RECORDS

ATTENTION: Members of the Board

Subject: Water Supply Investigation  
Facility No: 15-09-074

Gentlemen:

Enclosed please find copy of the inspection report concerning recent sampling of the Atlantic Municipal Water Supply.

A copy of the report and supporting documents is also being forwarded to your Water Supply Superintendent, Mr. Adolph Paul.

We believe the report is self-explanatory and, as indicated, further sampling will be necessary.

Sincerely,

COMPLIANCE DIVISION

R. W. GROTE  
Regional Administrator  
Regional Office No. 4

RWG:mi

Enc.

cc: Water Supply Division, DEQ, Des Moines, Iowa  
✓ Adolph Paul, Water Supply Superintendent

Main Office: Henry A. Wallace Building, Des Moines, Iowa 50319

Regional Office #1  
209 N. Franklin St.  
Manchester 52057

Regional Office #2  
509 S. President  
P.O. Box 1443  
Mason City 50401

Regional Office #3  
401 Grand Ave.  
P.O. Box 270  
Spencer 51301

Regional Office #4  
316 Walnut  
Atlantic 50022

Regional Office #5  
317 E. 5th St.  
P.O. Box 6160  
Des Moines 50309

Regional Office #6  
117 N. 2nd Ave.  
P.O. Box 27  
Wasson 50201

# The University of Iowa

Iowa City, Iowa 52242

University Hygienic Laboratory

(319) 353-5990



1847

6 October 1982

Atlantic Municipal Utilities  
15 West 3rd Street  
Atlantic, Iowa 50022

Attn: Mr. Adolph A. Paul

Dear Mr. Paul;

The analysis of the water sample submitted to us is complete. The results follow.

<u>UHL #</u>	<u>Identification</u>	<u>Tetrachloroethene</u>
2-3718	Well #7	191 ppb

Sincerely,

*Armand F. Lange, Ph.D.*

Armand F. Lange, Ph.D.  
Chief, Organic Analytical Division

lm

cc: Dr. Splinter  
Dr. Hahne  
Mr. Brewer  
File

## IOWA DEPARTMENT OF ENVIRONMENTAL QUALITY

## Report Of Investigation

Page 1 Of 2

<b>INVESTIGATION DATE</b> 8-24-82 & Current 9-2-82      Last -		<b>FROM:</b> (Use Stamp) IOWA DEPT. OF ENVIRONMENTAL QUALITY REGIONAL OFFICE 316 WALNUT ATLANTIC, IOWA 50022 PHONE 712/243-1921
<b>TO: (Facility Name, Location &amp; Address)</b> Atlantic Municipal Utilities Facility No: 15-09-074 c/o Board of Directors Atlantic, Iowa 50022		
<b>RE: (Specify Investigation Purpose Or Cite Rule)</b> Atlantic Water Supply Technical Assistance		<b>Persons Contacted (Name &amp; Position)</b> Adolph Paul, Water Supply Superintendent

**OBSERVATIONS/RECOMMENDATIONS**

Previous groundwater samples collected from the Atlantic Municipal Water Supply by the Iowa Geological Survey and analyzed by the University Hygienic Laboratory (UHL) disclosed possible organic solvent contamination. On August 24, 1982, Armand F. Lange, Ph.D., UHL, and R. W. Grote, Regional Administrator of Regional Office #4, resampled the Atlantic municipal well field. Results of this sampling showed that well #7 had a concentration of 170 ppb tetrachloroethene, well #3 had a concentration of 1 ppb tetrachloroethene, and well #12 had a concentration of 1 ppb tetrachloroethene (refer to enclosed laboratory reports and sketch).

These samples warranted further testing, and on September 2, 1982, Adolph Paul, water supply superintendent, and I collected water samples from the well field. Samples of all suspect wells were collected after operating a minimum of five minutes. The sample results of well #7 indicate that the tetrachloroethene contamination is in the aquifer: after five minutes, 107 ppb tetrachloroethene; after one hour, 224 ppb tetrachloroethene; and after 18 hours, 221 ppb tetrachloroethene. The sample result for tetrachloroethene from well #2 was less than 1 ppb, well #3 was 1 ppb, and well #12 was less than 1 ppb.

At the beginning of the sampling period, Mr. Paul turned on well #7 manually while operating his other wells in the automatic mode. Mr. Paul reported that well #7 pumped for approximately three hours by itself, exceeding normal blending concentrations. Well water into the treatment plant, after 18 hours of operation, had a concentration of 63 ppb tetrachloroethene. After aeration and anthracite filter, the water had a concentration of 6 ppb tetrachloroethene. Finished water from the treatment plant had a concentration of 3 ppb tetrachloroethene. The aerator appears to have effectively reduced the concentration of tetrachloroethene from the incoming water. The finished water concentration of 3 ppb tetrachloroethene poses no threat to the public health.

<b>SUSPENSE DATE</b>  1/1	<b>Signature</b> Inspector <i>Allan Goldberg</i> Allan Goldberg, Environmental Specialist	<b>Date</b> 9-20-82
	Regional Administrator <i>[Signature]</i>	10-1-82
<b>Enclosures (Specify)</b>		
<b>Distribution: Regional Office: Central Office: Inspected Facility</b>		

62 (3)

## LOCATION OF INVESTIGATION

Atlantic Water Supply

## DATE OF INVESTIGATION

8-24-82 &  
9-2-82

Mr. Paul has discontinued use of well #7 as a source of raw water for treatment. Mr. Paul is pumping water from well #7 to waste on a daily basis to keep the contamination of tetrachloroethene located in the aquifer near that well.

2nd STEP  
10/20/82 HRR HONY

In addition to well sampling on September 2, 1982, Mark Simpson, Environmental Specialist, walked the ditch adjacent to well #7 and the railroad track. Mr. Simpson did not observe any evidence of spillage or dumping of organic solvents at that time. The result of the drainage ditch sample adjacent to well #7 was less than 1 ppb tetrachloroethene.

Mr. Paul has a supply of 40 ml teflon-lidded vials for well water sampling for tetrachloroethene. It is recommended that Mr. Paul continue pumping the well to waste on a regular basis and collect periodic samples from the well after a minimum of one hour of pumping to determine the concentration of tetrachloroethene in the aquifer.

AG:ml

The University of Iowa

Iowa City, Iowa 52242

University Hygienic Laboratory

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1. \_\_\_\_\_  
2. *gj* \_\_\_\_\_  
3. \_\_\_\_\_  
4. \_\_\_\_\_  
5. \_\_\_\_\_  
6. \_\_\_\_\_  
7. \_\_\_\_\_  
8. \_\_\_\_\_

7 September 1982

Iowa Department of Environmental Quality  
Regional Office Number 4  
316 Walnut st  
Atlantic, Iowa 50022

Attn: Mr. Allan Goldberg

Dear Al,

Attached are the analyses of water from Atlantic, Iowa.

Sincerely,

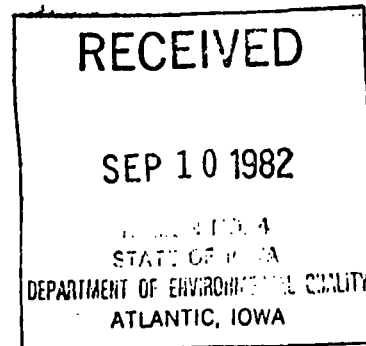
*Armand F. Lange, Ph.D.*

Armand F. Lange, Ph.D.  
Chief, Organic Analytical Division

lm

enclosure

cc: Dr. Hausler  
Dr. Splinter  
Dr. Hahne  
File



*Copy mailed to  
Rich Schramm  
9-15-82*

Laboratory Report Sheet  
Organic Analysis

UNIVERSITY HYGIENIC LABORATORY  
IOWA CITY, IOWA 52242

RECEIVED

SEP 10 1982

STATE OF IOWA  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
ATLANTIC, IOWA

Client: Iowa Department of Environmental  
Quality Regional Office #4

Date received:

2 September 1982

Date reported:

3 September 1982 (Telephone)

Client Sample ID	UHL Lab No.	Analyte	Concentration (ppb)
Well #2	2-3116	Tetrachloroethene	<1
Well #3	2-3117	Tetrachloroethene	1
Well #7 - 5 min	2-3118	Tetrachloroethene	107
Well #7 - 1 hour	2-3119	Tetrachloroethene	224
Well #7 - 18 hrs	2-3120	Tetrachloroethene	221
Ditch adjacent Well #7	2-3121	Tetrachloroethene	<1
Well #12 - 5 min	2-3122	Tetrachloroethene	<1
Raw Water	2-3123	Tetrachloroethene	63
Aeration & Anthracite	2-3124	Tetrachloroethene	6
Treatment Plant finished water	2-3125	Tetrachloroethene	3
Distribution sys- tem, Apco Gas Sta.	2-3126	Tetrachloroethene	3
Distribution sys- tem, Cntry Clb 9/1	2-3127	Tetrachloroethene	<1
Detection Limit		Tetrachloroethene	1 ppb
Precision		Tetrachloroethene	7%
Accuracy		Tetrachloroethene	5%

Comments: No trichloroethene was detected to a limit of 1 ppb

TCE - tetrachloethene ppb micro gram/l

Well # 2	> 1
Well # 3	1
Well # 7	107 (after 5 minutes)
"	224 (after 1 hour)
"	221 (after 18 hrs contin pump)
Ditch	> 1
Well # 12	> 1
Sample prior to treatment raw water	63

After aeration &  
after anthracite  
filter 6

Treatment plant  
finished water 3

Distribution system 3  
A pco

country club > 1

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1847

1. \_\_\_\_\_  
2. *gj* \_\_\_\_\_  
3. \_\_\_\_\_

7 September 1982

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Regional Office Number 4  
316 Walnut st  
Atlantic, Iowa 50022

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*Armand F. Lange, Ph.D.*

Armand F. Lange, Ph.D.  
Chief, Organic Analytical Division

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enclosure

cc: Dr. Hausler  
Dr. Splinter  
Dr. Hahne  
File

RECEIVED

SEP 10 1982

REGIONAL OFFICE 4  
STATE OF IOWA  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
ATLANTIC, IOWA

*Rec Sep 15 82*

*Copy Mailed to  
K. H. Splinter  
9-15-82*



Laboratory Report Sheet  
Organic Analysis

UNIVERSITY HYGIENIC LABORATORY  
IOWA CITY, IOWA 52242

RECEIVED

SEP 10 1982

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DEPARTMENT OF ENVIRONMENTAL QUALITY  
ATLANTIC, IOWA

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Well # 3 1

Well # 7 107 (after 5 minutes)

" 224 (after 1 hour)

" 221 (after 18 hrs contin pump)

Ditch 71

Well # 12 71

Sample prior  
to treatment  
raw water 63

After aeration &  
after anthracite  
filter 6

treatment plant  
finished water 3

distribution system 3  
A pco

country club 71

# The University of Iowa

Iowa City, Iowa 52242

University Hygienic Laboratory

(319) 353-5990



31 August 1982

Iowa Department of Environmental Quality  
Regional Office Number 4  
316 Walnut Street  
Atlantic, Iowa 50022

Attn: Mr. R. Grote

Dear Dick:

Attached are the results from the Atlantic wells. Thank you for your cooperation. I appreciated it.

Sincerely,

*Armand Lange / B n*

Armand F. Lange, Ph.D.  
Chief, Organic Analytical Division

cmw

Enclosure

cc: Mr. Adolph Paul  
Dr. Splinter  
Dr. Hahne  
File

Laboratory Report Sheet  
Organic Analysis

UNIVERSITY HYGIENIC LABORATORY  
IOWA CITY, IOWA 52242

Client: IDEQ  
Regional Office #4

Date received: 24 August 1982

Date reported: 30 August 1982

Client Sample ID	UHL Lab No.	Trichloroethene*	Tetrachloroethene*
Stream	2-2968	<1	<1
Well #1	2-2969	<1	<1
Well #2	2-2970	<1	<1
Well #3	2-2971	<1	1
Well #6	2-2972	<1	<1
Well #7	2-2973	<1	170
Well #8	2-2974	<1	<1
Well #9	2-2975	<1	<1
Well #10	2-2976	<1	<1
Well #11	2-2977	<1	<1
Well #12	2-2978	<1	1
Field Blank(s)	2-2979	<1	<1
Detection Limit(s)		1	1
Accuracy		18.1%	16.3%
Precision		31%	23%

\*Results in ppb ( $\mu\text{g/l}$ )